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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,446	12/14/2001	Eiichi Ibata	MAT-8210US	6366

7590 01/29/2003

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EXAMINER

ELKASSABGI, HEBA

ART UNIT PAPER NUMBER

2834

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,446

Applicant(s)

IBATA ET AL.

Examiner

Heba Elkassabgi

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- ☐ Interview Summary (PTO-413) Paper No(s). _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ibata et al. (J.P. #10-217272) and further in view of Koyama (J.P. #08-067449) and Obara (U.S. Patent 6420809 B1).

Ibata et al. discloses in Figure 1 a motor with a cylindrical frame (1) having a pipe (2) that is disposed within the frame (1) in which the frame and pipe are fitted as a union with one another. A cylindrical magnet (3) is fixed to an outer wall of the pipe (2) and at an inner wall of the magnet. However, Ibata et al. does not disclose a vibrating motor with a pipe having a sintered bearing press-fitted and that the frame is ferromagnetic material.

Koyama illustrates in Figure 1 a vibrating motor having a cylindrical coil (21) which is facing a magnet (17 and 18) via an annular gap in which the magnetic current flows through in order to rotate the vibrating motor and that the bearings (13 and 14) are press fitted with the housing (pipe) (12), for the purpose of obtaining an efficient rotation.

Obara discloses in Figure 12 a bearing that is sintered bearing and press fitted for the purpose of having a high accuracy of assembly and a low manufacturing cost.

It would have been obvious to one of ordinary skill in the art to combine the reference of Ibata et al. with the cylindrical coil and bearings of the vibrating motor of Koyama for the purpose of the magnetic current flow through the coils in order to rotate the vibrating motor and the bearings in order to obtaining an efficient rotation and the reference of Obara in relation to the type of bearing in order to have a high accuracy of assembly and a low manufacturing cost.

In regards to Claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a ferromagnetic material in constructing the frame since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

In regards to Claim 2, where no patentable weight has been given to the method of manufacturing limitations (i.e. welding, laser welding) since "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ

In regards to Claim 1 and 3, where the range of article sizes disclosed in the prior art envelopes the recited range, and there is no showing of criticality of the recited range, such recited range would have been one of ordinary skill in the art. In re Reven, 390 F.2nd 997, 156 USPQ 679.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama (J.P. #08-067449 and further in view of Obara (U.S. Patent 6420809 B1).

Koyama illustrates in Figure 1 a vibrating motor having a cylindrical frame (11) with bearings (12) fitted within the frame and cylindrical magnets (17 and 18) that are fixed on an outer wall of the bearing (12) and at an inner wall of a magnet (17 and 18). In addition a cylindrical coil (21) that is facing a magnet (17 and 18) via an annular gap in which the magnetic current flows through in order to rotate the vibrating motor and that the bearings (13 and 14) are press fitted with the housing (pipe) (12). However, Koyama does not illustrate a motor having sintered bearings and the frame and bearing are welded.

Obara discloses in Figure 12 a bearing that is sintered bearing and press fitted for the purpose of having a high accuracy of assembly and a low manufacturing cost.

It would have been obvious to one of ordinary skill in the art to combine the reference of Koyama with the sintered bearings of Obara for the purpose of having a high accuracy of assembly and a low manufacturing cost.

Art Unit: 2834

In regards to Claim 5, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a ferromagnetic material in constructing the frame since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

In regards to Claim 6, where no patentable weight has been given to the method of manufacturing limitations (i.e. welding, laser welding) since “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by –process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ

In regards to Claim 5 and 7, where the range of article sizes disclosed in the prior art envelopes the recited range, and there is no showing of criticality of the recited range, such recited range would have been one of ordinary skill in the art. *In re Reven*, 390 F.2nd 997, 156 USPQ 679.

Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ibata et al. (J.P. #10-217272) and further in view of Koyama (J.P. #08-067449) and Obara (U.S. Patent 6420809 B1) and Okuyama et al. (U.S. Patent 5798588).

Ibata et al. discloses in Figure 1 a motor with a cylindrical frame (1) having a pipe (2) that is disposed within the frame (1) in which the frame and pipe are fitted as a union with one another. A cylindrical magnet (3) is fixed to an outer wall of the pipe (2) and at an inner wall of the magnet. However, Ibata et al. does not disclose a vibrating motor with a pipe having a sintered bearing press-fitted and that the frame is ferromagnetic material and a housing with the motor disposed within.

In regards to Claim 9, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a ferromagnetic material in constructing the frame since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

In regards to Claim 10, where no patentable weight has been given to the method of manufacturing limitations (i.e. welding, laser welding) since "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ

In regards to Claim 9 and 11, where the range of article sizes disclosed in the prior art envelopes the recited range, and there is no showing of criticality of the recited

range, such recited range would have been one of ordinary skill in the art. In re Reven, 390 F.2nd 997, 156 USPQ 679.

Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama (J.P. #08-067449 and further in view of Obara et al. (U.S. Patent 6420809 B1) and Okuyama et al. (U.S. Patent 5798588).

Koyama illustrates in Figure 1 a vibrating motor having a cylindrical frame (11) with bearings (12) fitted within the frame and cylindrical magnets (17 and 18) that are fixed on an outer wall of the bearing (12) and at an inner wall of a magnet (17 and 18). In addition a cylindrical coil (21) that is facing a magnet (17 and 18) via an annular gap in which the magnetic current flows through in order to rotate the vibrating motor and that the bearings (13 and 14) are press fitted with the housing (pipe) (12). However, Koyama does not illustrate a motor having sintered bearings and the frame and bearing are welded.

Obara discloses in Figure 12 a bearing that is sintered bearing and press fitted for the purpose of having a high accuracy of assembly and a low manufacturing cost.

Okuyama et al. discloses in Figure 1 a vibrating motor 13 having a housing (casing) (10) with the motor disposed within the casing in order to provide a shell for the motor.

It would have been obvious to one of ordinary skill in the art to combine the reference of Koyama with the sintered bearings of Obara in relation to the type of

Art Unit: 2834

bearing in order to have a high accuracy of assembly and a low manufacturing cost and Okuyama et al.'s casing in order to provide a shell for the motor.

In regards to Claim 13, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a ferromagnetic material in constructing the frame since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

In regards to Claim 14, where no patentable weight has been given to the method of manufacturing limitations (i.e. welding, laser welding) since "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ

In regards to Claim 13 and 15, where the range of article sizes disclosed in the prior art envelopes the recited range, and there is no showing of criticality of the recited range, such recited range would have been one of ordinary skill in the art. *In re Reven*, 390 F.2d 997, 156 USPQ 679.

Art Unit: 2834

Response to Arguments

Applicant's arguments filed 11/04/02 have been fully considered but they are not persuasive. Applicant's argument that the limitation of "...the difference between an inner diameter of the frame and an outer diameter of the pipe is between 0um and 20 um." is not addressed in the examiners rejection. Applicants reason for the limitation that the fit-in margin of between 0 um and 20 um is so that the motor is able to withstand significant shock and therefore is able to reduce vibration in the inner diameter of a bearing is that the applicant has a different motivation than the prior art, the law does not require that the references or references be combined for the reason contemplated by the inventor, (see *In re Beattie*, 974 F2d 1009, 1312, 24 USPq2d 1040).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2834


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Heba Y. Elkassabgi
January 23, 2003


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